

# ***I-66 Today and the Future: Common Sense Solutions to End Gridlock***

**Hosted by Congressman Frank Wolf,  
Supervisor Pat Herrity, and Supervisor  
Michael Frey**

**Board Auditorium  
Fairfax County  
Government Center**



# **I-66: Current Level of Service**

**Katharine Ichter, Director  
Fairfax County Department  
of Transportation**

# **I-66: Short Term Solutions Proposed/Underway**

**Supervisor Pat Herrity**

**Supervisor Michael Frey**

# **I-66 Shoulder Travel Lanes**

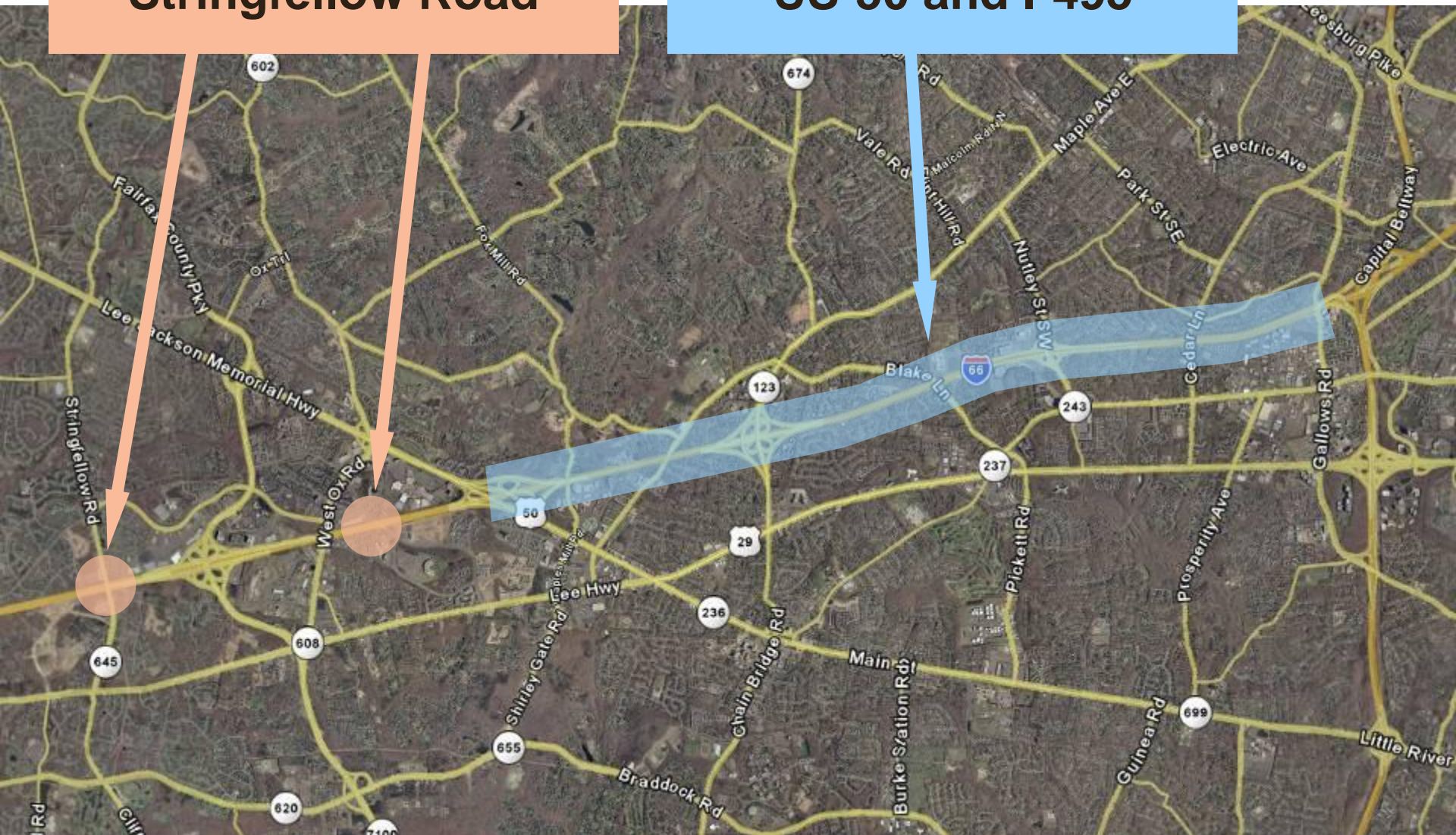
## **HOV Ramps at Monument Drive and Stringfellow Road**

**Hari Sripathi, P.E.**




**HOV Ramps at  
Monument Drive and  
Stringfellow Road**

**Shoulder Travel Lanes  
between  
US-50 and I-495**




## **I-66 Shoulder Travel Lanes**

- **Extended the use by one hour in the AM and PM peaks**
  - **Using during the incidents and construction lane closures**
  - **Need to balance the shoulder use for travel and emergency use**
  - **Weekend congestion is not consistent**
  - **So, we should use the lane only when needed**
  - **Need a reliable new system for dynamic use**
  - **No funding identified – under consideration for new stimulus**
  - **Need further coordination with stakeholders for further use**
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# HOV Ramps at Stringfellow Rd / Monument Dr

- **Proposed to open in the WB direction off-peak and weekends**
  - **Additional safety measures implemented**
    - Added battery back up for signals
    - Converted to LED signal heads for better target value
    - Added additional LED signs displaying the restrictions
    - Implemented the all red flash mode
  - **Working with FHWA – need their concurrence**
  - **Minor sign modifications are needed**
  - **Can be implemented 3 to 6 months after the approval**
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# **Bus-Only Ramp at Vaden Drive (Nutley Street)**

**Karyn Moreland, P.E., Chief  
Capital Projects Section,  
Fairfax County Department  
of Transportation**

# **Improving Traffic Flow on I-66 at the Beltway**

**Larry O. Cloyed, PMP  
Senior Project Manager,  
Virginia Department of  
Transportation**



# Capital Beltway HOT Lanes Project

## *New Travel Choices Ahead*





## Overview

- Two **new lanes** in each direction
- Carpool/HOV-3 lanes on the Beltway and Tysons Corner for the first time
- Seamless connection with existing HOV Service
  - I-395/I-95, I-66, and Dulles Toll Rd
- Congestion-free network for transit buses
- Toll option for motorists needing reliable travel time



## General Construction Plan

- Build outer 2 lanes: 2008 – 2011
- Rebuild/lengthen all bridges & overpasses along alignment: 2008 – 2011
- Shift traffic into two new outer lanes: 2010 - 2011
- Build inner two (HOT) lanes: 2011 – 2012
- **Projected HOT Lanes Opening: Late 2012 / Early 2013**





# 2008-2012

## Three Construction Phases

### Phase 1: *Underway*

- Building eastbound and westbound bridges over Beltway
- Restored modified I-66 eastbound regular and HOV exit ramps to I-495 north in March.

### Phase 2:

- Build 2nd half of eastbound bridges over Beltway
- Build flyover ramps on Beltway and I-66

### Phase 3:

- Continue building flyover ramps; HOT Lanes (New flyover ramp to I-495 North will improve travel flow and safety onto Beltway)

### Other Enhancements:

- New auxiliary lanes will be extended from I-66 to Route 7 on the Beltway
- Will allow commuters more time to safely merge onto Beltway

# I-66







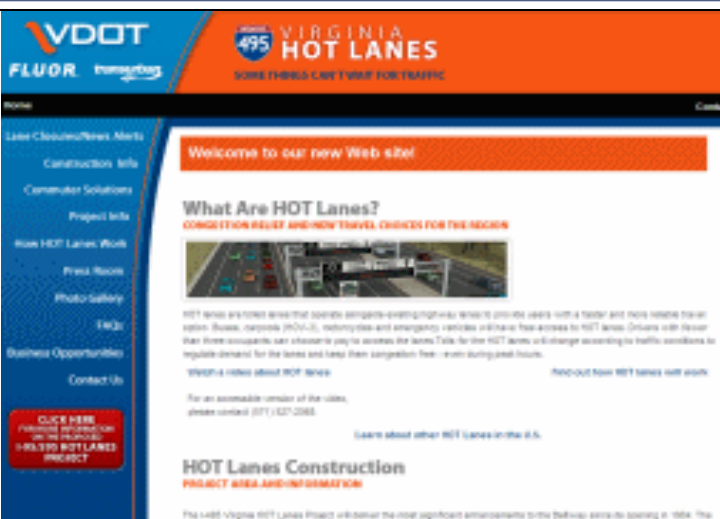
*Some things can't wait for traffic*

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**[www.VAmegaprojects.com](http://www.VAmegaprojects.com)**

***Provides information on:***

lane closures, travel advisories, email alert sign-up, multiple project links



**[www.virginiahotlanes.com](http://www.virginiahotlanes.com)**

**Provides information on:**

*project details/benefits, detailed construction info/timeline, sign up for progress updates and look ahead at future work*



# **Utilizing I-66 Messaging Signs to show available Metro Parking**

**Selby Thannikary, P.E., Chief,  
Traffic Operations Section  
Fairfax County Department of  
Transportation**

**I-66: Long Term**

**Solutions**

**Proposed/Underway**

**Congressman Frank Wolf**

# **I-66 Multi-modal Transportation & Environmental Study**

A STUDY FOR:

Virginia Department of Transportation

Virginia Department of Rail  
and Public Transportation

PRESENTED BY:

Steven R. Shapiro, PE, PTOE

Dewberry & Davis LLC

# I-66 Multi-modal Transportation & Environmental Study





# I-66 Multi-modal Transportation & Environmental Study

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## **1999 Major Investment Study I-495 to Route 15**

- Recommended a multi-modal strategy to accommodate future travel demand in the I-66 corridor

## **2001 I-66 MTES began as a multimodal EIS including consideration of:**

- Rail extension
- Added bus service
- More HOV and general purpose lanes
- Expanded TDM programs

# I-66 Multi-modal Transportation & Environmental Study

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## Current studies must recognize congestion and growth in the corridor

- Seven-eight hours of congestion/day
- 200,000 vehicles/day
- Forecasted >50% increases in households, jobs and people in the next 20 years in the corridor outside the Beltway

## Study also must recognize

- Limited right of way
- Limited funding
- Need for multiple modes and short, medium and long range solutions

# I-66 Multi-modal Transportation & Environmental Study

## 2009 Status

- Traffic in the HOV lane is exceeding capacity and expansion / ITS enhancements should be considered
- Eastbound and westbound volumes are more nearly equal in peak and off-peak directions
- Shared shoulder lanes need to be replaced with travel lanes and shoulders
- Virginia Code requires consideration of HOT lane alternative
- Enhancing Transit Service beyond Vienna is a necessity
- Enhanced linkages between transportation and land uses are desirable

# I-66 Multi-modal Transportation & Environmental Study

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A stand alone issue analysis is being conducted in advance of the formal environmental process to investigate key issues and questions such as:

- **Modeling Processes**
- **Discontinuities between I-66 HOV operations and the evolving HOT/HOV system**
- **Right of way constraints**
- **Bus Rapid transit/express bus network (study already underway)**
- **Latest Federal and State Regulations**

**Environmental process (NEPA) will incorporate key findings and recommendations**



# I-66 Multi-modal Transportation & Environmental Study

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## Schedule

- Transit study underway with report due early 2010
- Key issues studies draft reports due spring 2010
- Draft NEPA document(s) expected late 2011

# **I-66 Transit/TDM Study**

## **Study Synopsis**

**April 19, 2010**

**Michael J. Harris, Project  
Manager**

**Virginia Department of Rail  
and Public Transportation**

# Presentation Outline

- ❑ **Study Overview**
- ❑ **General Travel Forecasts**
- ❑ **Market Research Findings**
- ❑ **Public Information Program**
- ❑ **Study Recommendations**
- ❑ **Projected Costs**
- ❑ **Next Steps**

# Study Overview

## ❑ Study Goal

To identify more transportation choices through transit and transportation demand management (TDM) enhancements that will increase mobility in the I-66 corridor

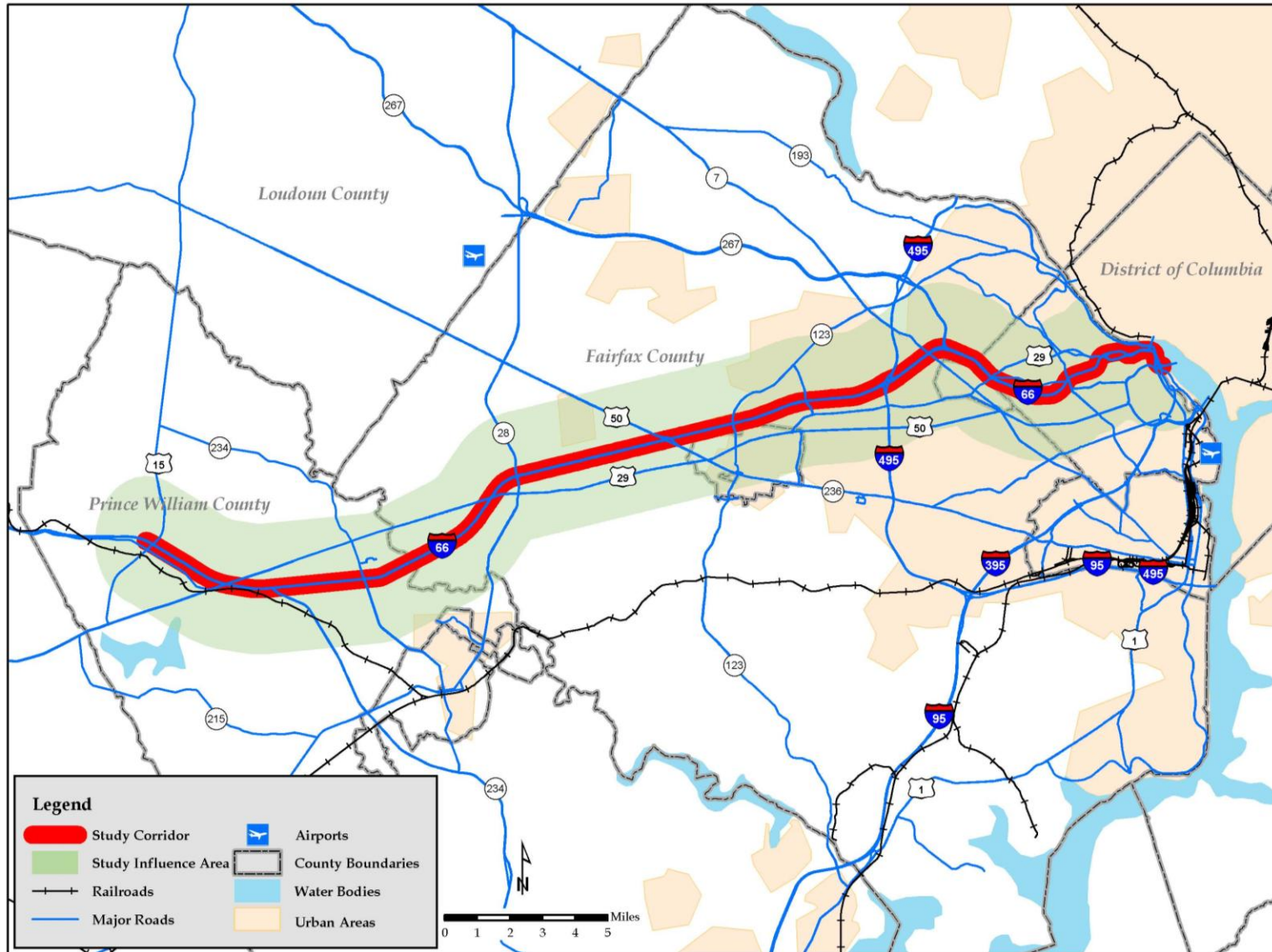
## ❑ Study Scope

- Study the I-66 corridor from Washington D.C. to Haymarket including parts of U.S. 29 and U.S. 50
- Evaluate short- and medium-term transit and TDM improvements and make recommendations
- Recommendations support established future vision of extending Rail
- Provide input into the restart of the I-66 Multimodal Transportation and Environmental Study

## ❑ Conducted by DRPT in coordination with a Technical Advisory Committee (TAC)

# Study Overview

## Corridor Map





# General Travel Forecasts

- ❑ From 2005 to 2030:
  - Commuter trips originating in the corridor increase by 22%
  - Commuter trips destined to the corridor increase by 40%
  - The increase in destinations in the corridor are reflective of expanded suburban job opportunities
- ❑ D.C., Rosslyn-Ballston and Tysons Corner are major transit destinations
- ❑ Transit mode share from the I-66 corridor to the core remains high (60%)
- ❑ Point-to-point express services offer maximum time savings and thus are most attractive

# Market Research Findings

- ❑ The **most important factors** in choosing transit modes are:
  1. Time savings
  2. Cost savings
  3. Dependability
  
- ❑ Two thirds of current SOV drivers indicate that they would try shifting to transit if there were:
  - Improved access to stations
  - Priority Bus with limited stops
  - Comfort and convenience amenities
  
- ❑ Employer and institutional TDM support is necessary to encourage use of modes other than single-occupant vehicles
  
- ❑ Expanded telework programs could eliminate some commuter trips
  
- ❑ There is a need for increased marketing of the available transit services and TDM programs

# Public Information Program

- ❑ Interviews conducted with over 40 key stakeholders in the I-66 corridor including:
  - Elected officials, appointed officials, NVTA, NVTC and PRTC
  - Homeowner and civic associations
  - Chambers of commerce
  - Metro, Potomac Rappahannock Transportation Commission (OmniRide), *Fairfax Connector*, *CUE*, *ART*
- ❑ Six public information meetings conducted in two rounds
- ❑ Public Information findings include:
  - Traffic congestion in the I-66 corridor should be addressed as soon as possible
  - There is not just one solution to traffic congestion but rather a mix of improvements will be needed
  - Implementing elements of BRT was considered by most to make good sense for this region as a low cost precursor to rail

# Study Recommendations

## Proposed Services

### ❑ New Priority Bus services

- U.S. 29 and U.S. 50 Metrobus Express services
- I-66 corridor Priority Bus services from Haymarket and Centreville to D.C. Core

### ❑ Increased service levels on selected routes

- Gainesville OmniRide, Manassas OmniRide, & Manassas Metro-Direct

### ❑ Expanded transit destinations served including:

- Tysons Corner
- Reston/Herndon area
- VA 28 corridor/ Dulles International Airport
- Ballston

### ❑ Improvements to the corridor Priority Bus services

- Traveler information system upgrades (e.g., next bus, message notification)
- Real-time Corridor Parking Information
- Customer comfort and productivity amenities (e.g., seating at stations, WiFi service)

### ❑ Enhanced transit-supportive TDM strategies

- Rideshare programs
- Transit information programs

# Study Recommendations

## Proposed Infrastructure

- ❑ Add 3,000 through capacity expansions at three existing lots and the construction of four new lots in the western end of the corridor
- ❑ Develop a system to provide real-time parking information to travelers about all park and ride lots in the corridor
- ❑ Construction of in-direct Priority Bus stations along the I-66 corridor (similar to Herndon/Monroe station along DTR)
- ❑ Construct direct access ramps from HOV lane at Vienna Station and proposed indirect bus stations further west
- ❑ Signing and marking improvements, including a buffer between the General Purpose and HOV lanes (outside the Beltway) to improve the performance of the HOV lane



# Study Recommendations

## Related Recommendations

- ❑ Review adequacy of pedestrian and bicycle facilities at transit hubs and stations
- ❑ Transit-oriented development (TOD), as a part of new station area planning
- ❑ Integration of I-66 corridor Priority Bus services into regional Priority Bus System
- ❑ Additional Studies:
  - How transit ridership along the VA 28 corridor can best be realized
  - Identify preferred station location and form for a context-sensitive transportation hub at the terminal station in the Town of Haymarket
  - Planning for the longer-term extension of rail in the corridor

# Projected Costs

## Summary Cost Projections for Recommendations<sup>1</sup>

Plan Element	Annual Operating Cost <sup>2</sup>		Capital Cost		
	Short Term	Medium Term <sup>3</sup>	Short Term	Medium Term <sup>4</sup>	Total
Transit Services	\$10.1	\$11.1	\$35.7	\$47.5	\$83.2
Priority Bus Stations	-	-	\$57.3	\$112.2	\$169.5
Runningway Improvements	-	-	\$2.0	-	\$2.0
TDM Programs	\$1.5	\$3.6	\$5.3	\$0.5	\$5.8
Park and Ride	\$0.2	-	\$26.5	\$3.5	\$30.0
<b>Total</b>	<b>\$11.8</b>	<b>\$14.7</b>	<b>\$126.8</b>	<b>\$163.7</b>	<b>\$290.5</b>

1. All costs are expressed in millions of 2010 constant dollars and represent costs beyond providing existing programs and services.
2. Annual operating costs are expressed net of farebox revenue.
3. Medium-term operating costs are inclusive of costs to operate plan elements included as short-term recommendations; they are not additive with the short-term operating costs.
4. Medium-term capital costs include new programs, services, and infrastructure beyond the short-term recommendations, plus cost for vehicle replacements for services initiated in the short term.

# Next Steps

- ❑ **Short-term recommendations can be staged in accord with how rapidly each element can be implemented, thus the benefits can begin to accrue prior to 2015**
  - Engineering review and design of the recommended HOV lane improvements
  - Park and ride expansions at existing lots
  - Implementation of TDM programs
  - Preliminary engineering of the direct access ramps at Vienna Station
- ❑ **This study's results will inform the I-66 Multimodal Studies which are underway...**
  - Attributes study draft report due spring 2010
  - Key issues draft report due spring 2010
  - Draft NEPA document(s) due 2011



Virginia Department of Rail and Public Transportation

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**804-786-4440**

# **Introduction to Bus Rapid Transit (BRT)**

**William Vincent,  
Deputy Director  
Breakthrough Technologies  
Institute**



# *Questions and Answers*